

WHAT IS CLAIMED IS:

1. Oxidation catalysts comprising mixed oxides of copper, manganese and one or more rare-earth metals, wherein the metals can assume multiple valence states, having a percentage composition by weight, expressed as 5 CuO, MnO and rare-earth oxides (in which the metal has the lowest valence) of, respectively, 8-50%, 10-75% and 2-15%.
2. The catalysts according to claim 1, having a composition of 35-40% as CuO, 50-60% as MnO and 10-15% as  $\text{La}_2\text{O}_3$ .
3. The catalysts according to claim 1, wherein the mixed oxides are 10 supported on inert porous inorganic carriers.
4. The catalysts according to claim 3, wherein the carrier has a porosity of more than  $0.3 \text{ cm}^3/\text{g}$  and a surface area of more than  $30 \text{ m}^2/\text{g}$  and is selected from alumina, silica and silica-alumina.
5. The catalysts according to claim 4, wherein the alumina is gamma 15 alumina in the form of microspheroidal particles or of single- or three-lobed cylindrical rings provided with through bores with geometric area/solid volume ratio of more than  $1.3 \text{ mm}^{-1}$ .
6. The catalysts according to claim 4, wherein the amount of supported mixed oxide is from 5 to 60% by weight.
7. Use of the catalysts according to claim 1 in the combustion of volatile 20 organic compounds (VOC).
8. The use of the catalysts according to claim 7 in the combustion of VOC compounds present in gaseous effluents.
9. The use of the catalysts according to claim 8 in the combustion of 25 VOC compounds present in gaseous effluents from chemical or printing industries.
10. The use of the catalysts according to claim 1 in purifying gases exiting reactors for the solid-state polycondensation of aromatic polyester resins.
- 30 11. The use of the catalysts according to claim 10, wherein the

purification is carried out by using the stoichiometric amount of oxygen required for the combustion of the impurities to carbon dioxide and water.

12. The use of the catalysts according to claim 1 in the catalytic combustion of hydrocarbons in burners of thermal power stations for 5 generating electricity.